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AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings of claims in the application:

1. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 30 consecutive nucleotides of SEQ ID NO: 43.

2. (Previously Presented) A composition comprising one or more of the synthetic nucleic acid of claim 1.

3. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a biological sample, the method comprising:

   a) contacting nucleic acid from a biological sample with at least one primer which is a nucleic acid of claim 1,

   b) subjecting the nucleic acid and the primer to amplification conditions, and

   c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.

4. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 30 consecutive nucleotides of a nucleic acid sequence that is complementary to SEQ ID NO: 43.

5. (Previously Presented) A composition comprising one or more of the synthetic nucleic acid of claim 4.

6. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a biological sample, the method comprising:

a) contacting nucleic acid from a biological sample with at least one primer which is a nucleic acid of claim 4,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.

7. (Canceled)

8. (Previously Presented) A primer set for determining the presence or absence of SARS-associated corona virus in a biological sample, wherein the primer set comprises at least one synthetic nucleic acid sequence selected from the group consisting of:

(a) a synthetic nucleic acid sequence consisting of from 19 to 30 consecutive nucleotides of SEQ ID NO: 43; and

(b) a synthetic nucleic acid sequence consisting of from 19 to 30 consecutive nucleotides of a nucleic acid sequence that is complementary to SEQ ID NO: 43.

9. (Previously Presented) The primer set of claim 8, wherein the at least one synthetic nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ 1D NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ 1D NO: 7, SEQ 1D NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16.

10. (Previously Presented) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 2.

11. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 3~~, or a fragment, variant, or derivative thereof~~.

12. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 4~~, or a fragment, variant, or derivative thereof~~.

13. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 5~~, or a fragment, variant, or derivative thereof~~.

14. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 6~~, or a fragment, variant, or derivative thereof~~.

15. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 7~~, or a fragment, variant, or derivative thereof~~.

16. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 8~~, or a fragment, variant, or derivative thereof~~.

17. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 9~~, or a fragment, variant, or derivative thereof~~.

18. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 10~~, or a fragment, variant, or derivative thereof~~.

19. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 11~~, or a fragment, variant, or derivative thereof~~.

20. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 12~~, or a fragment, variant, or derivative thereof~~.

21. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 13~~, or a fragment, variant, or derivative thereof~~.

22. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 14~~, or a fragment, variant, or derivative thereof~~.

23. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 15~~, or a fragment, variant, or derivative thereof~~.

24. (Currently Amended) The primer set of claim 9, wherein the at least one synthetic nucleic acid sequence has the nucleotide sequence of SEQ ID NO: 16~~, or a fragment, variant, or derivative thereof~~.

25. (Original) A composition comprising the primer set of claim 8.

26. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a biological sample the method comprising:

a) contacting nucleic acid from a biological sample with primer set of claim 8,

b) subjecting the nucleic acid and the primers to amplification conditions, and

c) determining the presence or absence of amplification product, wherein the presence of amplification product indicates the presence of RNA associated with corona virus in the sample.

27. (Previously Presented) A kit for determining the presence or absence of SARS-associated corona virus in a biological sample, comprising at least one of the synthetic nucleic acids of claim 1 or 4.

28. (Previously Presented) The kit of claim 27, wherein the at least one synthetic nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16.

29. (Previously Presented) A kit for determining the presence or absence of SARS-associated corona virus in a biological sample, comprising:

a primer set comprising at least two synthetic nucleic acid sequences, wherein at least one of the at least two synthetic nucleic acid sequences is selected from the synthetic nucleic acid of claims 1 or 4.

30. (Previously Presented) The kit of claim 29, wherein the at least one nucleic acid sequence has a nucleotide sequence selected from the group consisting of SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, and SEQ ID NO: 16.

31. (Original) The kit of claim 29, further comprising:

(c) suitable PCR reagents; and

(d) optionally, a positive and/or negative control for determining the presence or absence of SARS-associated corona virus.

32. (Original) The kit of claim 31, wherein the PCR reagents include a thermostable DNA polymerase and dNTP solutions.

33. (Canceled)

34. (Previously Presented) The method of any one of claims 3, 6 or 26, wherein the biological sample is obtained from a subject suspected of having SARS.

35. (Previously Presented) A composition comprising a mixture of at least two synthetic nucleotides of claim 1 or 4.

36. (Previously Presented) A synthetic nucleic acid of any one of claims 1, 4 or 8, wherein the synthetic nucleic acid is linked to a fluorescent reporter.

37. (Previously Presented) The method of any one of claims 3, 6 or 26, further comprising a synthetic nucleic acid linked to a fluorescent reporter.

38. (Previously Presented) The methods of any one of claims 3, 6 or 26, wherein the presence of amplified nucleic acid in step c) can be determined by separating and visualizing the amplified nucleic acids by electrophoresis to obtain separate products, or by determining the amount of fluorescence after at least one amplification cycle.

39. (Canceled)

40. (Canceled)

41. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 28 consecutive nucleotides of SEQ ID NO: 43.

42. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 28 consecutive nucleotides of a nucleic acid sequence that is complementary to SEQ ID NO: 43.

43. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 30 consecutive nucleotides of N-gene region or 3' non-coding region of SARS-associated coronavirus genome.

44. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of from 19 to 30 consecutive nucleotides of a nucleic acid sequence that is complementary to N-gene region or 3' non-coding region of SARS-associated coronavirus genome.

45. (Previously Presented) A synthetic nucleic acid which has the sequence consisting of SEQ ID NO: 2.

46. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 3.

47. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 4.

48. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 5.

49. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 6.

50. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 7.

51. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 8.

52. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 9.

53. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 10.

54. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 11.

55. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 12.

56. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 13.

57. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 14.

58. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 15.

59. (Previously Presented) A synthetic nucleic acid which has a sequence consisting of SEQ ID NO: 16.

60. (Previously Presented) The synthetic nucleic acid of any one of claims 49, 53, 56 or 59, wherein the synthetic nucleic acid is linked to fluorescent reporter.

61. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is the nucleic acid of SEQ ID NO: 2,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

62. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 3,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

63. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 4,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

64. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 5,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

65. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 6,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

66. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 7,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

67. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 8,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

68. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 9,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

69. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 10,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

70. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 11,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

71. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 12,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

72. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 13,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

73. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 14,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

74. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 15,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.

75. (Previously Presented) A method for determining the presence or absence of SARS-associated corona virus in a sample, the method comprising:

a) contacting nucleic acid from a sample with at least one primer which is a nucleic acid of SEQ ID NO: 16,

b) subjecting the nucleic acid and the primer to amplification conditions, and

c) determining the presence or absence of amplification product.